

REMARKS

Claims 1-22 are now pending in the above-referenced patent application. Applicants respectfully request further consideration of these claims, in view of the amendments set forth above and the following remarks.

Cancelled Claims

Claims 9, 10, 20 and 21 have been cancelled to advance the prosecution of the instant case. Applicants expressly reserve the right to refile the cancelled claims, without prejudice, in a continuing application. Applicants' cancellation of these claims should not, in any way, be considered as an admission with respect to any outstanding rejections applying to such claims, and Applicants hereby expressly deny any such interpretation. Likewise, Applicants cancellation of these claims should not, in any way, be considered as a surrender of any subject matter covered by the cancelled claims or any equivalents thereof, and Applicants hereby express their intent to pursue patent coverage for such subject matter and equivalents thereof.

Acknowledgement

Applicants acknowledge that claims 4-6, 15, 16 and 22 are considered patentable and would be allowed if rewritten in independent form. Applicants submit that claim 22 is in independent form and should be allowed.

Rejections Under 35 U.S.C. § 103(a) (Liu)

The Office action rejects claims 1-3, 7-9, 12-14 and 17-19 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,767,968 (hereafter "Liu").

Applicants respectfully traverse these rejections.

Independent claim 1 requires polymerizing a liquid hydrophilic monomer under polymerization conditions in the presence of a dithio-containing control agent to create a hydrophilic block and subsequently reacting the hydrophilic block with an olefin monomer capable of free radical polymerization under polymerization conditions to form an olefinic block. The block copolymer can change the surface tension of an olefinic substrate by an amount of at least 10 mN/m.

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Independent claim 12 requires polymerizing an olefinic monomer under free radical polymerization conditions in the presence of a dithio-containing control agent to create at least one olefinic block and subsequently reacting the olefinic block with a hydrophilic monomer capable of free radical polymerization under polymerization conditions to form a hydrophilic block.

The Office action alleges that in view of the disclosure of Liu, that "the examiner has a reasonable basis to believe that" many of the claimed features are inherently possessed in Liu.

A rejection under 35 USC §102/103(a) based on inherency is improper unless the Office action sets forth a *prima facie* basis establishing the asserted inherency. As noted in the MPEP, the

EXAMINER MUST PROVIDE RATIONAL OR EXTRINSIC EVIDENCE TENDING TO SHOW INHERENCY.

See MPEP §2112 (capitalization in original). In fact, for claims directed to processes in which a required element of the claim is asserted as being inherent in the prior art, the Examiner must demonstrate that "the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art." See *In re Best*, 195 USPQ 430 (CCPA 1977) (emphasis in original); *Continental Can Company USA, Inc. v. Monsanto Co.*, 20 USPQ2d 1746 (Fed. Cir. 1991); See also *Hansgirk v. Kemmer*, 40 USPQ 665, 667 (CCPA 1939) (stating that "(i)nherency may not be established by probabilities or possibilities," but rather, must be based on a "natural result flowing from the operation as taught.>").

To the extent that the Office is relying on inherency, such reliance is inappropriate. Inherency may not be established by possibilities or probabilities; rather, the required feature must *necessarily* follow from the teaching of the reference. See MPEP 2112; *Continental Can Company USA vs. Monsanto Company*, 20 USPQ2d 1746 (Fed. Cir. 1991). In the present case, a creating a block copolymer that can change the surface tension of an olefinic substrate by an amount of at least 10 mN/m would *not necessarily* occur in the polymerizations of Liu. Properties of resulting copolymers as claimed are dependent on many factors, including monomer concentrations and types as well as other reaction conditions, such as temperature, time, pressure, etc. Polymerizing ABA block copolymers as taught in Liu, may or may not result in polymers that can change the surface tension of an olefinic substrate by an amount of at least 10 mN/m. A skilled artisan would *not*, therefore, have considered Liu to teach a method that is specifically directed to polymerizing polymers as claimed.

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To the extent the Office action is relying on inherency of a resulting property in the disclosed polymerization methods, such reliance is misplaced in the context of an obvious determination. Courts have long held that inherency and obviousness are entirely different questions. "That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown." In re Shetty, 195 USPQ 753 (CCPA 1977) quoting In re Spormann 150 USPQ 449 (CCPA 1966). See also In re Rijckaert, 28 USPQ2d 1955 (Fed. Cir. 1993). Hence, the inherent application of Liu's approach to polymerization cannot form the basis for rejecting the claims as obvious since inherency is immaterial if one of ordinary skill in the would not have necessarily understood the polymerization methods to make polymers that can change the surface tension of an olefinic substrate by an amount of at least 10 mN/m. See In re Naylor, 152 USPQ 106 (CCPA 1966). That is, even if a skilled artisan may have appreciated that copolymers as claimed could be made, this does not support an obviousness determination because such knowledge would not necessarily have led to the inventions as presently claimed.

Finally, while the Office action alleges that one would have been motivated to use the teachings of Liu to conduct polymerization methods as claimed, because "Liu discloses the types of monomers and comonomers being claimed", no reference has been cited which teaches this advantage for the particularly claimed methods. The Examiner appears to be applying "hindsight reconstruction" by using the teaching of the Applicants' patent application as a guide for searching, analyzing and combining the portions of Liu in the right way to arrive at the claims at issue. Such hindsight reconstruction is clearly contrary to the law -- the suggestion must be found in the prior art, and not in the applicant's disclosure. Because the only basis for combining comes from the teaching of Applicants' own disclosure, the *prima facie* burden of establishing that claims 1-3, 7-9, 12-14 and 17-19 would have been obvious to a skilled artisan has not been met.

For at least these reasons, Applicants request that the rejections be withdrawn.

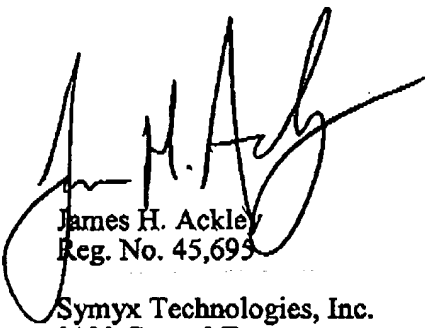
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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Applicants believe that no further fees are required in connection with the instant amendment. If necessary, however, the Examiner is hereby authorized to charge any fees required in connection with this application to Deposit Account No. 50-0496.

Respectfully submitted,

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